

Measurement Of Light Output Of NE213 And NE102A Detectors For 2.7-14.5 MeV Neutrons

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Summary

The light output of 125-mm-diameter NE213 and NE102A detectors has been measured for neutron energies ranging from 2.7 to 14.5 MeV. For neutron energies below 6.14 MeV, measurements were carried out using the neutron time-of-flight spectrum from an Am-Be neutron source, while for proton energies above 6.14 MeV, measurements were carried out using neutrons produced from the T(d,n) reaction. For the NE102A detector the measured light output is in good agreement with the data of R.A. Cecil et al., (1979) but for the NE213 detector the light output is 2-15% lower than that for a similar detector. The NE213 detector light output agrees with the data of V. Verbinski et al. (1968)

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